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Fact Sheet

Better Assessment Science Integrating point and Nonpoint Sources, Version 3 (BASINS 3.0)

Summary
Version 3.0 of the Better Assessment Science Integrating point and Nonpoint Sources (BASINS) software system has been released. BASINS has three major objectives:

- To facilitate examination of environmental information,
- To support analysis of environmental systems,
- To provide a framework for examining management alternatives.

Background
Originally released in 1996, with a second release in 1998, BASINS comprises a suite of interrelated components. BASINS' databases and assessment tools are directly integrated within an ArcView environment. These components work together to support the user performing various aspects of environmental analysis. The components include (1) nationally derived databases with Data Extraction and Project Builder tools; (2) assessment tools (TARGET, ASSESS, and Data Mining) that address large- and small-scale characterization needs; (3) utilities to facilitate importing local data and for organizing and evaluating data; (4) Watershed Delineation tools; (5) utilities for classifying elevation (DEM), land use, soils, and water quality data; (6)Watershed Characterization Reports that facilitate compilation and output of information on selected watersheds; (7) an in-stream water quality model; (8) two watershed loading and transport models; and (9) a simplified GIS based nonpoint annual loading model.

What's New in BASINS 3.0?
This major release includes an overhaul of the system architecture that packages system components as ArcView extensions and external programs. This architecture is open and flexible. It promotes the growth of BASINS by allowing users and developers to write their own extensions to the system.

BASINS 3.0 also includes many new features and improvements.

- An automatic delineation tool that allows users to delineate watersheds based on Digital Elevation Model (DEM) grid formatted data.
- An enhanced manual delineation tool that allows users additional flexibility in editing shapes and attributes of manually delineated watersheds.
- A new Windows interface for the HSPF model that fully supports interaction with the entire HSPF input sequence.
- A watershed model called Soil Water Assessment Tool (SWAT), developed by the U.S. Department of Agriculture's Agriculture Research Service.
- A model called PLOAD, developed by CH2M-Hill, which uses export coefficients to estimate watershed loading.
- A model postprocessor and scenario generator called GenScn, originally developed for the U.S. Geological Survey (USGS). GenScn allows users to manage, visualize, analyze, and compare the results of several HSPF and/or SWAT simulations.
- A time series data management utility called WDMUtil.
- A grid projector that allows the user to project grid data.
- An improved Permit Compliance System point source (PCS) database with annual loadings updated through 1999.
- DEM (grid format) data on the distribution CD buffered to 8 digit HUC boundaries.

How to Get Additional Information
For further information about BASINS 3.0, contact:

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or visit the BASINS web site (http://www.epa.gov/ost/BASINS/)